ARCHITECTURE

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PLATES AND ILLUSTRATIONS.

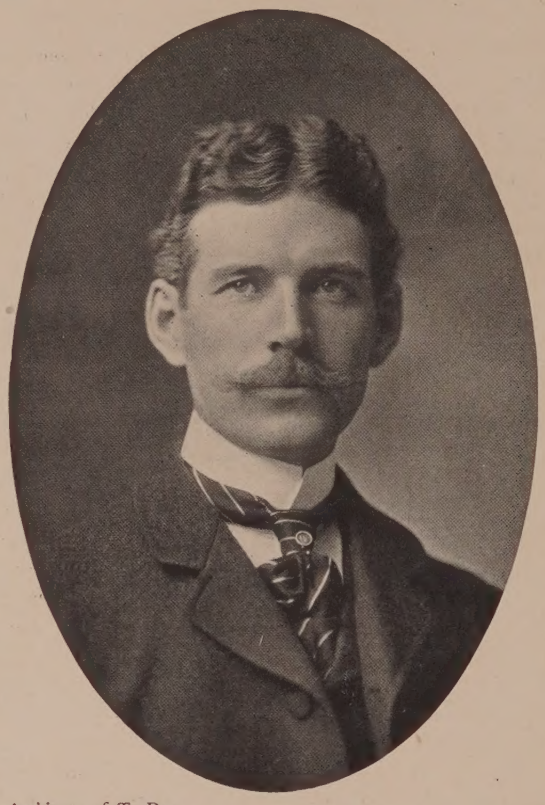
PROFESSIONAL COMMENT.

A RECENT decision, rendered in the Supreme Court of the State of New York, in the case of Haynes versus Rufel, relieves the owner from a large amount of responsibility which the profession in general had supposed rested upon him. In the course of the construction of a hotel, owned by the defendant, certain shoring and sheath piling of an adjoining bank was necessary, and during the progress of the work the earth slipped, causing certain damage to the property of the plaintiff, who promptly brought an action for damages. In his defense the owner of the hotel produced a contract in court showing that the shoring had been contracted for with a third party, and the court thereupon dismissed the case, declaring that the cause of action on the part of the neighbor was against the contractor and that he could not recover against the owner of the property.

WHEN laws are enacted affecting the interests of lawyers or physicians the public immediately hears a protest from the representative societies of these professions in terms which leave no room for doubt as to their attitude on their proposed new measures. It is a rare month, however, in which new statutes governing buildings and consequently affecting the practice of architects are not proposed or enacted. The public never hears from the architects or their representative societies. No protests are made to the officials responsible for the change—and when the individual practitioner finally wakes up to the situation he usually finds that it is too late, and that prospective operations for which he has prepared sketches must be abandoned. There has been two important instances of this sort in New York City within the past month, both notoriously inspired, not by any desire to improve methods of construction, but passed in the interest of certain influential political groups.

The first was an amendment to the Building Code, presumably for the further protection of the theatre-going public, compelling the leaving of additional courts around theatre buildings in such a manner that theatre buildings in New York will become unprofitable. This situation, however, is much desired by a group of influential aldermen who are interested in a number of unsafe theatres, and who do not wish to be annoyed by further competition. The second case is an amendment to the Code passed during the closing days of June, and together with the theatre amendment awaiting the Mayor's action, compelling the use of so-called fireproof wood in all buildings, the construction of which is required to be fireproof under the Code. The daily press charges that this, too, is in the interest of the two or three concerns who manufacture this so-called fireproof product, and that a number of leaders of the dominant party are interested in these companies. In the case of the theatre amendment a few architects interested in theatre construction attempted to arouse interest in the matter among their professional brethren, but failed lamentably through lack of interest on the part of those to whom they applied for help. The President of the Local Chapter of the A. I. A. was also appealed to, but no response was made and nothing was accomplished.

NEW YORK CITY will probably have to pay twice for its architectural service for the new Manhattan Bridge. When ex-Bridge Commissioner Lindenthal retained Mr. Hornbostel to prepare the designs for the bridge, it was agreed that the city should pay Mr. Hornbostel some $26,000 for his services, and up to date it is said that $19,000 has been paid and that a claim has been



Architects of To-Day.

MR. AUSTIN W. LORD.

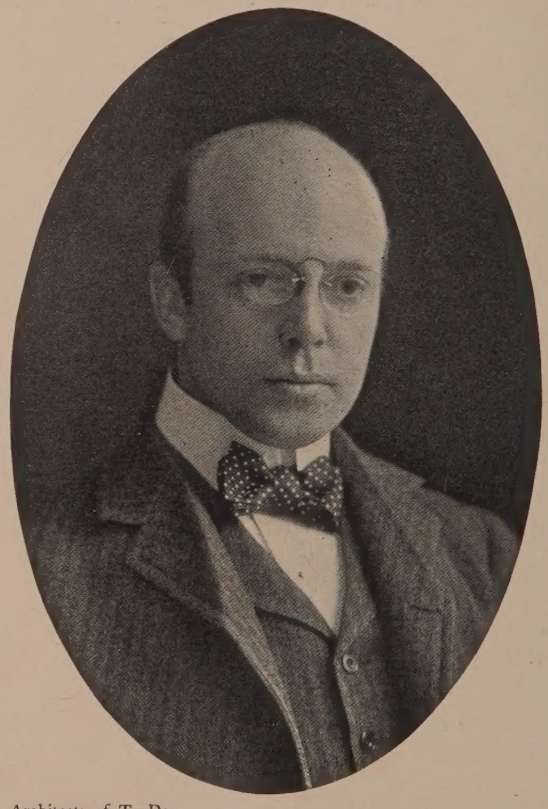
filed for the balance. The new Commissioner, Mr. Best, has discarded the greater part of Mr. Hornbostel's designs and appointed Messrs. Carrere & Hastings as architects, and a new contract has been made by which the city will have to pay $25,000 to the new appointees. The revised designs will also have to receive the approval of the Municipal Art Commission, although it is likely that the members of the Commission will find themselves in a peculiar predicament, on account of their previous approval of the original scheme.

HERETOFORE the profession of architecture has been one of the few which has not been particularly overcrowded; but at the rate by which the technical schools and universities are placing graduates in the field, this condition will soon be past. A prominent southern architect has recently made a calculation that it takes a population of at least twenty thousand to support one architect in a living practice, and then only in large centers of population. The building trades, however, furnish a safety valve for the overplus, and the answer to the question of what becomes of all the draughtsmen can be found in the fact that a large number of them drift into commercial lines where their knowledge of architecture is of permanent value in their careers, and where their acquaintance with the members of the profession forms an asset of considerable value to the firms to which they give their services.

IN the designing of places of public assembly the laws in the larger cities are conflicting in the extreme. The responsibility for the enforcement of the various acts to which the architect has to conform is so divided that the various municipal departments are frequently in conflict with one another and the architect is at a loss to know which master he must obey. Recognizing this unfortunate state of affairs the last report of the Commissioner of Buildings of the Borough of Manhattan suggests "the creation of a Board of Public Officers, made up of representatives of the Fire Department, the Board of Fire Underwriters, the theatre interests and Corporation Counsel, to pass upon the question of the safety of theatres and places of public assembly and determine what measures might be taken to secure safety and compliance with the law." This Commission as a court of final appeal would settle many difficulties for the architect.

IT would seem peculiar for one to read a criticism of a work of art in painting or sculpture if in the criticism the name of the artist could not be found. Within the past few weeks the *New York Herald* devoted a large amount of space to describing and illustrating the Hotel St. Regis but the name of Messrs Trowbridge and Livingston was not even referred to in spite of the fact that the article was copied verbatim from a technical journal which was given full credit. In contradistinction to this much to-be-regretted attitude too often assumed by the daily press—one turns to the article on the "New West Point" in the July *Century* in which the Architects Messrs. Cram, Wenthworth & Goodhue are given the full credit to which they are entitled for their solution of this magnificent problem in a manner which will be beyond question worthy of the designers and the nation.

BELIEVING that the extent of the Fellowships and Scholarships in the School of Architecture at Columbia University are not sufficiently well known to the profession, we print herewith the statement in relation to the subjects from the Bulletin of Informa-



Architects of To-Day.

MR. MONROE HEWLETT.

tion issued by the Department of Fine Arts of Columbia for the year 1904-5

"In the year 1890 there were established three traveling fellowships; one by the Trustees, being the interest of an endowment $13,000, set apart by them for this purpose in recognition of the liberality of Mr. Frederick Augustus Schermerhorn to the Department of Architecture, and two equal fellowships, the interest of $20.000, given by Mr. Chas. F. McKim; these prizes are awarded in alternate years. In addition to these, every fourth year—the next award being in 1906—there is awarded a traveling fellowship, the interest of a bequest of $5,000 by the late Willard B. Perkins.

The value of the McKim fellowships, at their last award, was $800 each.

These fellowships are open to all graduates of the School of Architecture, who are less than thirty years of age. They are awarded in May of each year, as a result of a competition in design, upon a programme issued early in the Spring to those entitled to compete.

A limited number of scholarships of the value of $200 are awarded to students in need of th t assistance, whose record for ability and scholarship gives evidence for special fitness for these studies.

In addition to these, the Richard Butler Scholarship, for the benefit of male students born in the State of Ohio, is open for competition to qualified candidates who propose to enter Columbia College, or one of the non-professional Schools of Political Science, Philosophy, or Pure Science, or the professional Schools of Law, Medicine, Applied Science, or Architecture. The scholarship is tenable for one year, with a possibility of renewal for each of two years more, and candidates for the School of Architecture must have the qualifications prescribed for entrance thereto.

Applications for these scholarships must be filed on or before May 1, on appropriate blanks, which may be obtained upon application to the Secretary of the University."

IN a most interesting article on "Architects' Specifications according to the Practice in the City of New York," by John Cassan Wait, in *The Brickbuilder* for May and June, the profession is convicted of many legal sins, some of which are the result of habit and others of seeming desire to avoid responsibility. According to Mr. Wait, the principle enunciated by the schedule of the A. I. A. that "the drawings as instruments of service are the property of the architect," has no standing in law, and he quotes decisions of the New York courts to sustain his statement, which, in our opinion, would be very unjust under certain circumstances.

It seems to us that the property rights in the drawings should properly rest upon the nature of the architect's contract with the client. The client usually employs the architect to construct his building, and the drawings are prepared as a necessary part of the service contracted for. If it were possible to complete the building without the preparation of drawings, the client might be equally well satisfied. What the client wants is the completed building. Under these circumstances it seems to us that the drawings are purely instruments of service. If, on the other hand, a set of drawings is purchased for a fixed sum by the client, there can be no doubt that the ownership rests with the client. Under these circumstances he cannot be restricted in the use of the article for which he has paid the purchase price.

Mr. Wait also condemns the habit of compelling the approval of the sub-contractors by the architect, and he points out that the original proposal has been based upon the sum of a number of sub-bids, to which the builder's profit has been added. Therefore, the contractor should not be required to discard any of these bids upon which his final estimate is based.

The writer evidently forgets that it is the usual practice of a large number of contractors promptly to begin re-estimating upon all of their sub-bids immediately after the contract is signed. And as he then usually has lots of time at his disposal, the work is frequently "peddled" all over in his effort to obtain a lower bid than the one used in the make-up of the original estimate.

The question could be fairly met with justice to both sides by requiring the contractor to submit the names of his sub-contractors with his estimate, and if the estimate is accepted under these circumstances every one would receive justice. No one would have cause to complain, and a large number of the sub-contractors, now frequently cheated out of the results obtained by the use of their bids, would receive proper consideration.

We regret to say that there is no defense on the part of the profession for most of Mr. Wait's criticisms and a careful reading of his instructive article should reform many a specification.

INTERNATIONAL CONGRESS OF ARCHITECTS AT MADRID, APRIL 6TH, 1904.

THE opening session, held in the great hall of the university, was a most impressive affair. There were present the minister of public instruction and fine arts, the minister of public works, the civil governor of Madrid, the mayor and the diplomatic corps. The meeting was held at 3 o'clock in the afternoon and every one appeared in official dress. The picture was a gay one. The cabinet ministers and other high Spanish officials appeared in court costumes, the diplomats wore their most resplendent uniforms, the government architects were likewise clad, while most of the foreign delegates were in conventional full dress. Many of the architects wore decorations conferred upon them by their respective governments. The royal band furnished music for the occasion, which was formal and magnificent from beginning to end.

Seventeen countries were represented at the congress. As delegate of the American Institute of Architects, as well as representative of the government, I had the pleasure of extending to the congress an invitation to meet in America at an early date. England and Italy had put in prior claims, however, and it was decided that the next congress should be in London in 1906. Following that, the congress will probably meet in Rome, and then we have every reason to believe that the United States will have the pleasure of entertaining this distinguished body of men.

The congress was in session daily in the amphitheatre of the Athenæum for the discussion of topics of world-wide interest. One of the subjects was "L'Art Nouveau as Applied to Architecture." Another was "The Preservation and Restoration of Architectural Monuments." In the discussion of this paper it was urged that the governments of different countries should buy and preserve the old structures which represent a type of architecture. "The Character and Scope of Scientific Studies and General Instruction of the Architect," "The Influences of Modern Processes of Construction Upon Artistic Forms," "The Instruction of Building Mechanics," and "The Artistic Ownership of Architectural Designs," were among the themes discussed. In the discussion of the last-named topic the idea was brought forward that there should be some means of allowing an architect to copyright the design of a building, thus preventing an imitation of his work.

Other subjects before the congress were: "Should the Architect Act as Arbitrator in Settling Disputes Between the Contractor and Workmen?" and "Influence of Building Regulations Upon Private Contemporary Architecture," and "Appropriation by the Government of Works of Architecture." Speakers on the latter subject recommended that the government should take possession of fine old buildings which were not being taken care of properly. Possession could be obtained by means of condemnation proceedings, with proper compensation to the owner. The discussion of

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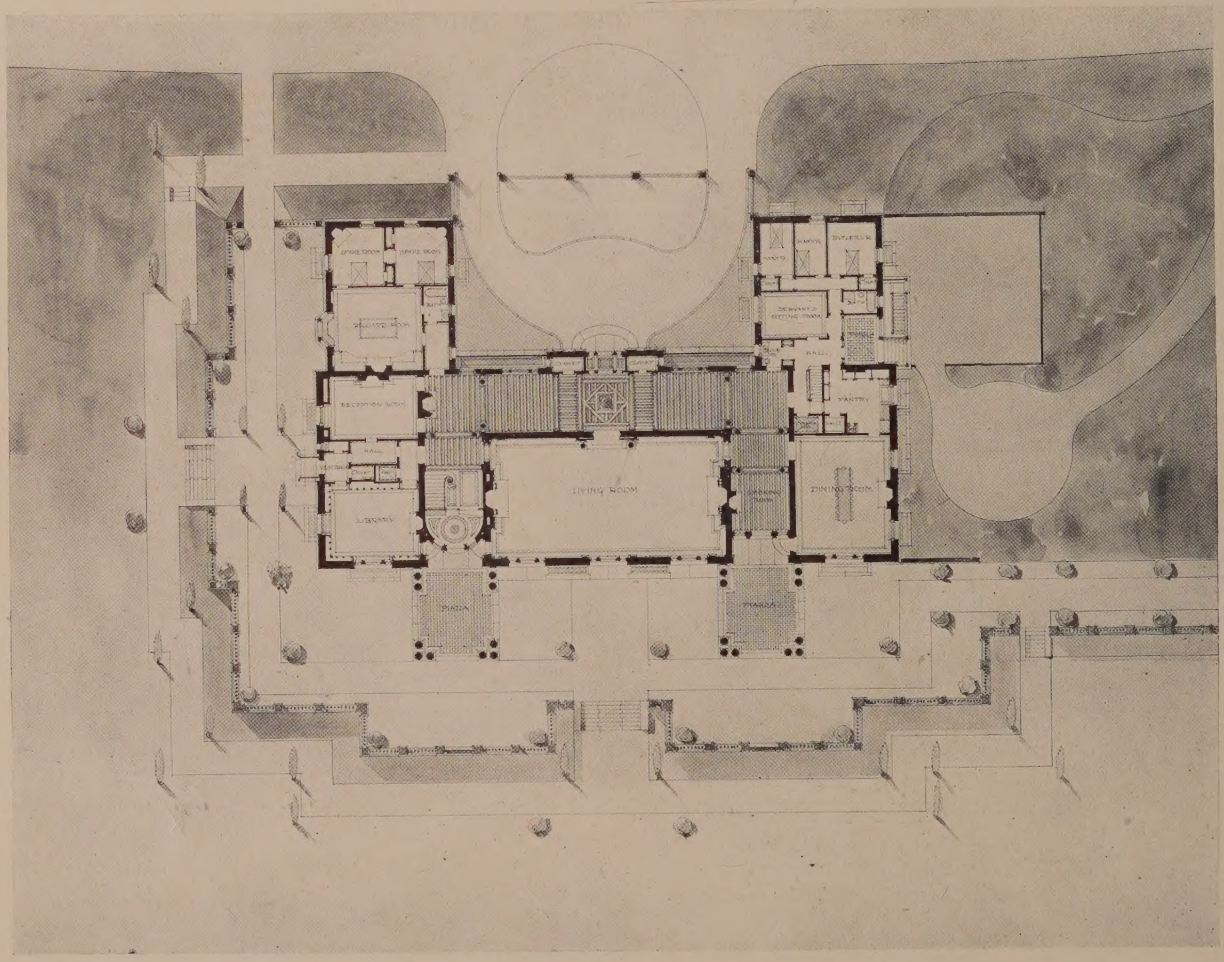

COUNTRY HOUSE AND PLAN, ANSON PHELPS STOKES, NOROTON, CONN.
Howells & Stokes, Architects. A. R. Whitney, Jr., & Co., Builders, 135 Broadway, New York. Copyright, 1904. Wurts Bros., Photo.

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this topic was of timely interest, as Spain is just now suffering the mortification of having had one of her most famous old palaces bought by a dealer in antiques. The ancient structure has been torn down stone by stone and removed to Paris, where it is to be reconstructed, and probably sold to some millionaire. The building in question is the Palace Infanta, formerly the object of great interest at Saragosa.

During the congress the sessions were interrupted by two excursions. The first of these was to Toledo, one of the most interesting spots in all Spain. It is situated on a high plateau and surrounded by mediæval walls, with the river running on either side. Once the stronghold of the Moors, there are in the city many interesting studies of their school of architecture. The Cathedral of Toledo is one of the greatest and richest in the world. It is estimated that the treasure in this church edifice is sufficient to pay off the national debt of Spain.

The cathedral grill is wrought of solid silver. The relics and princely costumes stored in its vaults are priceless. Gold brought by Columbus from the new world forms a part of the vast treasure. We lunched at the Theatre Rojas, entertained by the city officials. The parquet of the theatre had been floored over and the tables arranged in horseshoe form. In the boxes sat the invited guests, most of them the beautiful wives and daughters of our hosts. During the meal the pretty Spanish girls and matrons pelted the diners with flowers. Many blossoms were returned to the boxes, a veritable battle of flowers ensuing. The scene was one not soon to be forgotten. The entire day was most remarkable.

The second excursion was to the cities of Alcala de Henares and Guadalajara. At Alcala lived Cervantes, author of "Don Quixote." We visited the church where he was baptized and were presented by the town officials with handsome, specially cast bronze medals, bearing on one side a likeness of Cervantes and on the other official designation of the congress. The last function of the congress was a brilliant banquet in Madrid. The gaiety of this affair was in sharp contrast to the dignified and ceremonious session.

The congress appointed on the permanent committee the following Americans: Messrs. Glenn Brown and G. O. Totten, jr., of Washington; Mr. Jenney of Chicago, William Eames of St. Louis, and Richmond Allen of Boston.

International congresses such as the one just closed, of which the proceedings with papers and discussions by the brightest minds are republished in all the modern languages, are of immense value to the profession at large. But they possess still more of interest to the fortunate few who are able to attend, for to them the congress has the added advantage of visiting a foreign country under the most advantageous circumstances, when everything is thrown open for the inspection of the delegates and every courtesy extended to them. And again, there is the exceptional opportunity of meeting in person the distinguished men of one's own profession from all parts of the world. The president of the congress was Velasquez, the eminent Spanish architeet. Urioste, Cabello and Repulles also represented Spain. Pascal and Daumet came from Paris, Count de Suzor from Russia and DeVestel from Belgium.

One's idea of the Spaniards is of a slow-moving, leisurely people, but I must say that the men in charge of the convention displayed a degree of energy and conducted the congress in a manner surpassing any gathering of similar magnitude and importance it has ever been my good fortune to witness. We found in every instance that the most minute details had been strictly attended to. Everything was promptness and precision. A daily bulletin was printed in the French and Spanish languages. This was an interesting feature of the convention at the time and is now a valued record of the proceedings.

GEO. O. TOTTON, JR.

ECONOMICS OF BUILDING.

J. H. SMITH.

ECONOMY of design and construction is one of those qualities which appeal to all those who build either for business, pleasure, or speculation. The rise in prices of both materials and labor makes it the duty of the profession to keep the expenditure within certain limits, and yet we must distinguish between what is known as a "cheese-paring economy" and that reasonable restriction in our building which may be more correctly termed economical. As we all know, there is a kind of "cheapness" which, in the long run, turns out dearness, whether it is applied to our garments, our furniture, or our houses and buildings; materials, textile and others, which wear out and look shabby, and workmanship which soon becomes the worse for wear. We cannot call this economy, but rather extravagance, for the word "economy" comes from two Greek words—*oikos*, house; and *nomos*, law—and really means management of a house, prudence in the use of means and money, and so, as applied to building, it ought to mean the use and arrangement of material and labor that will give us the best result. Negatively, we can affirm it does not mean cheap bricks or stone or timber, thin walls or scantlings; it is not synonymous with a low price or tender, or with anything that is common and of little value. So, having cleared our definition of a good deal of what it is not, we may turn to consider a few of the methods by which economy may be attained. The word, at least, is loosely applied by many people. They appear to think that a low tender and a cutting down of materials are economy. We do not believe in a beam being made deeper or heavier than it need be to carry a given load, nor a floor being constructed with steel joists or girders and thicker concrete than experience has shown to be sufficient for its special purpose; at the same time we would draw a line between adequacy and inadequacy. We should not think it economy if the beam deflected every time a heavy load came upon it, or if the floor had to be temporarily propped or supported from below when a crowd of people occupied the room. But there are certain ways in which economy can be attained. Let us consider a few of those often disregarded by the architect. Adaptation and suitability of plan is one of the most important of them. A wasteful plan is the cause not only of inconvenience and discomfort, but is uneconomical in every sense. Unnecessarily long corridors; a room having a corridor on two sides, constitute defective and wasteful arrangements. So features ought to be adapted also to their use. Rooms too big for their special purpose, or too high, or lighted by windows that are too wide or wrongly placed; a fireplace too large for the room, or a door in the wrong position cannot serve their purposes economically; but these things are factors in good economical planning. We could point to many mistakes. Economy of planning also consists in minimizing the distances traversed in a building, thus reducing the amount of wear and tear of those using it. Doors and windows placed in the most desirable positions for entrance and light indicate also an economical arangement, and they show that the architect has made the best of his opportunity, and a greater amount of service and saving of artificial light are secured. The economist in design will discover how he can make the most

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MAIN STAIRCASE, COUNTRY HOUSE, ANSON PHELPS STOKES, NOROTON, CONN.

Howells & Stokes, Architects. A. R. Whitney, Jr., & Co., Builders, 135 Broadway, New York. Wurts Bros. Photo.

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use of, and obtain the greatest convenience and comfort from every room, and in the most direct way. To the novice and unskilful planner those matters appear trivial; but they are really the points which distinguish an economical plan from a wasteful and costly one.

In construction, economy is of the greatest importance. The economics of construction includes not only a scientific treatment of materials, but a mechanical arrangement of all members of a building, so that they should be perfectly adapted to their various purposes, of sufficient size to carry the required loads or to resist stresses without being wasteful or extravagant. The laws of mechanics in their application to structures of masonry, timber and iron are the basis of economics; but it is needless here to dwell upon them. One of the main conditions is that every member, whether it be a column, an arch, a beam, a strut, or any tensile member, should be apportioned to the stress. How often we see an arch ill-proportioned to the load, either unnecessarily thick, or without sufficient abutment, or of the wrong shape. A girder or beam must be proportioned to its lead. If its working load is greater than the proper factor of safety requires, it is apt to bend, and is not the most economical; it may, however, be too large, or the section may be heavy, and then it is extravagant or wasteful of metal. There is a certain section in which the depth and width, or flange to web, are properly proportioned to the requirements, the metal being duly distributed to resist tension, compression, or buckling, that we call economical, and it can be ascertained by mechanical means, or by formulæ. The economics of the beam is really the due proportion to resist the compression and tension in the upper and lower flanges well known to all students. It would be uneconomical, for example, to design a cast-iron girder with equal flanges when scientific theory has established the fact that the lower flange should have six times the sectional area of the upper flange. Economy also determines that the molecular for es in a beam must balance those of the weight—that is, that the "bending moment" of a beam must be balanced by the moment of resistance to the fibres, and this equality can be found by a certain depth of beam or area of flange. It would be simply wasteful of material to put it in a beam of double the depth, or to place the beam on its side instead of its narrow edge. In truss designs the economics of construction must be observed in the disposition of the various members so that the stresses may be taken directly by struts and tensile members of the proper sectional area. In the compression members like a strut, economy is observed by so placing the strut that its axis coincide with the line of pressure, and thus avoid cross strain. Every member of a roof or any framed work should have a direct bearing, and be proportioned for its special work. Any disregard of this rule is wasteful of material, and is a violation of economical conditions. The sectional area of each piece ought to be equal to the work it has to do, either as a strut or as a tensile member. If too great, there is needless material, and weight is added; while if inadequate, an undesirable strain is created, and the structure suffers. The science of economics will, in fact, make the study of stresses the chief object, rather than that of architectural effect, though one depends much on the other. An extravagant use of material or a badly arranged construction cannot satisfy the artistic sense. The study of stresses or graphic statics is therefore essential to an economic design. In iron and steel structures it is of the utmost importance to use material with discretion. A lumpy iron column, or a girder that has been made too large, adds an undesirable load to the foundations; it is therefore better to reduce all the sections to a minimum compatible with safety. In this country there is a tendency, on account of the great height to which office buildings are erected, to reduce the uprights and floor structures to the lowest limits so as to lessen the weight on the foundations. The necessity of encasing or fireproofing have also made it imperative to reduce all columns and other members. But, of course, this saving may be carried to an extreme, and it is possible to carry it beyond the limit of economy. The economics of steel construction comprises not only a nice adjustment of weights and resistances, a careful study of graphic statics, but also means of protection from corrosion and fire. It would be costly extravagance to erect an iron building that was exposed to all the changes of the weather without adequate protection either by painting or encasing all ironwork in cement; and the experience of iron structures like bridges is that they require constant supervision and protection from the corresive action of the atmosphere.

PRIZE DESIGNS.

C. H. Ball.

AS in the case of the artist, sculptor, or painter, the architect must often resort to experimental means of satisfying himself about the actual result or effect of his buildings. In a practical country like ours, there is a risk in being rather precipitate—in depending too much on what has been done, and too little on what may and can be accomplished, if only we give ourselves a little more trouble and tentative labor to find out. The professional man is quite satisfied if he sees something that will suit his requirements, or knows where to go for his information. It may be a plan of an executed building in a professional journal, or a building that is near at hand and can he inspected; or, if he wants to design any detail, he thinks nothing of finding some precedent on an old or modern building that will suit him. He simply modifies, or takes the example, and appropriates it in his drawings. It does not often trouble him if the example he has annexed has little or nothing which agrees with his own problem. Site, scale, materials, conditions of accommodation and use, light, and other circumstances, may be more or less different; he takes the building for what it is worth and arranges his own work upon it. He is perfectly satisfied if he has obtained a near approach to his wants. We have so many buildings designed and built on this plan, that we seldom question the procedure, though we cannot fail often to notice strong resemblances, and come to the conclusion that the architect has been following in another's groove. The client is satisfied; he thinks his architect has thoroughly studied the problem and given him the best result of his experience. So he has; but it might have been better, both in arrangement and in external design, if he had taken a little more time in studying or had compared a few buildings of the same kind before committing himself to bricks and mortar. It is remarkable what the result of a visit to a few structures of the same class may be, or even consultation with men who are experts. A very different interpretation may be given to a plan, or some slight rearrangement be suggested that will greatly aid the usefulness or administration of a department. New light may be thrown unexpectedly on a particular part that may make it necessary to remodel the plan. A stereotyped plan or elevation takes fast possession of the mind, and it is extremely difficult to dislodge it from its assumed position. Like an inveterate custom or habit or prejudice, its dominance is often in proportion to the time it has lasted, quite conversely to its

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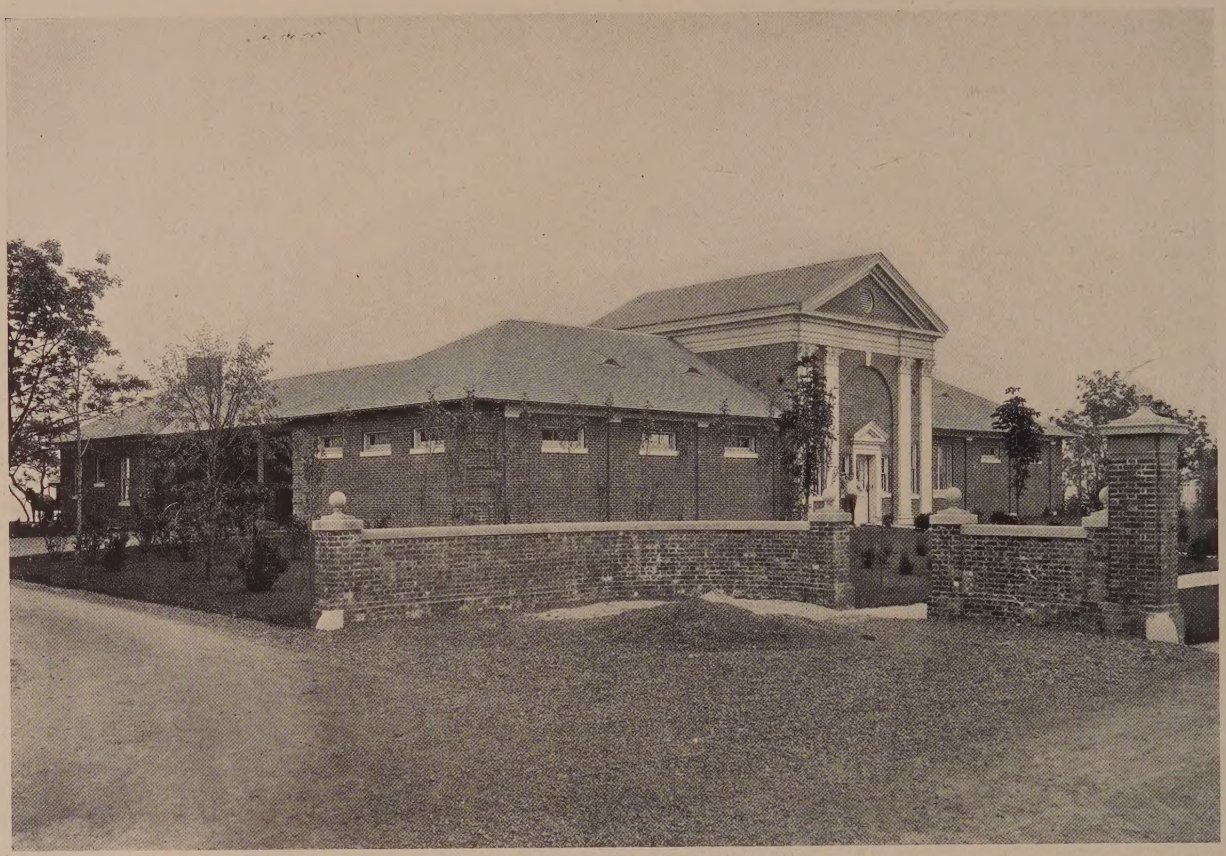

THE STABLE AND MAIN APPROACH, COUNTRY HOUSE, ANSON PHELPS STOKES, NOROTON, CONN.
Howells & Stokes, Architects. A. R. Whitney, Jr., & Co., Builders, 135 Broadway, New York. Wurts Bros. Photo.

THE GREAT ROOM AND MAIN HALL, COUNTRY HOUSE, ANSON PHELPS STOKES, NOROTON, CONN.
Howells & Stokes, Architects. A. R. Whitney Jr., & Co., Builders, 135 Broadway, New York. Copyright, 1904. Wurts Bros. Photo.

DESIGN FOR HOUSE, SPENCER KELLOGG, BUFFALO, N. Y. Green & Wicks, Architects.

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real claim. So it is with all prejudices and traditional forms. We shall never get any useful reform if we adhere to old laws and practices because they are old. Their very age is often a reason why conditions have changed. What would have been the result if we had remained obdurate with the old system of housing the infirm and sick, or the old plans of prisons, hospitals and schools? Our modern scientific school buildings have been developed by successive changes and modifications which were stoutly resisted by the opponents of change. In the case of hospitals, infirmaries, asylums, laborers' dwellings, and the like, the influence of scientific investigation and public security have broken through the restraints of tradition and stereotyped schemes. But the new types thus evolved have in their turn resisted further change, and are now regarded as permanent types which cannot be altered. Architects adhere to this or that type of hospital or school upon which to base their new schemes. It is, of course, convenient to adopt a precedent; but it does not follow that it is suitable for changed conditions. To take as an illustration a hall for music and concerts. The architect selects a type of structure that gives the best acoustical results; it is of certain dimensions, and built of brick, and has a flat or curved ceiling. The hall he proposes to build is one of double the area; its position varies, its aspect and surroundings are not the same. Can he be surprised if its acoustical qualities are defective? He has not considered the factors of dimensions; the walls are of brick, but differently lined inside; the roof is timber, partly open; the position and environment are quite different. These varying elements are sufficient to explain the difference in result, though the plan may be a correct reproduction. Even the addition of galleries or the arrangement of internal fittings may make the acoustical effect different. The obvious lesson is that in adopting a precedent the architect is bound to be consistent. Unless his conditions are similar, he cannot expect to achieve like results. Unless he can reproduce all the circumstances, the dimensions, materials, and fittings, he had far better not restrict himself to a particular plan, but try to work out his problem independently. It is, of course, quite impossible for an architect, like the sculptor or modeller or painter, to make a preliminary study in the case of a building; he cannot make a full-size model, and try the result; and this places him in a less favorable position than his brother artists. The old Mediæval architect pursued a course that was more logical. He did not copy a building or a plan of a church or conventual building that he saw near him, but he adopted certain traditional rules that prevailed at the time, and made his plans conform to the site, material, and purpose. In this way he produced a building which, though it may have resembled other buildings of the kind in a general way, was an independent solution of the problem.

STANDARD PLANS.

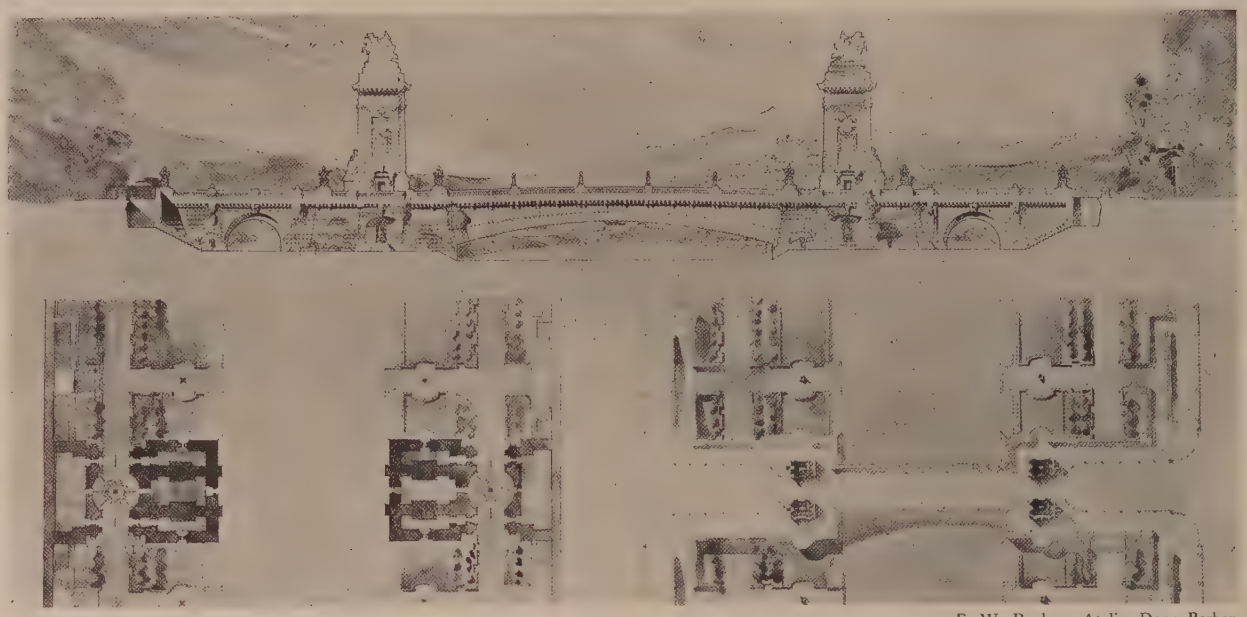
J. C. Holt.

PROBABLY there is a type to be found for every class of building, if only the architect knew where to look for it. As a matter of fact, he is often at a loss to know where to find a structure that will give him an idea that will suit his purpose; for, after all, it is the idea that the designer wants in the planning and design of any building. A man may be a thorough artist—a skillful designer; but if he be without an idea to work upon, a great deal of his ability may be thrown away. A good stock of ideas, of mental plans and arrangements or treatments of design is of the utmost value to the architect; but how very few in the profession appear

to possess this gift ! The average practitioner, absorbed with all sorts of business details and duties, has very little opportunity. When he has a building to design that is a little out of the common, he naturally turns to his volumes of ARCHITECTURE or other professional journals, to his portfolios, or to works that have been executed by other members of the profession, and if he is at all skillful in adaptation he may be able to do something with them ; but he may just miss the right motive or principle of design. If he could at once hit on the right motive or idea of plan an immense amount of laborious thought and effort, pencilling and erasing would be saved. All that he can do in ordinary circumstances is to take up the problem where others have left it, trusting to his own invention and skill to produce a building that will serve its object. It is this difficulty which is felt by all who enter the profession of architecture. The majority of men are without the gift of invention ; they can take up the subject just where their immediate predecessors have left it, without trying to make any effort to discover a better scheme or principle. A new public library is contemplated, or there is a competition for one. The average practitioner is contented to find out a library recently built and to base his plans upon it, without ascertaining primarily what the actual requirements are of a public free library and its mode of working and organization and endeavoring to meet these in the most direct manner he can. In this way he would probably be led to a more economical and simple plan than by following the arrangement of a building that may not be perfect even for its particular site. Any faults it had he may perhaps repeat, and in a worse form. But this is the ordinary mode of proceeding. He does not pursue his inquiry into the origin and functions of the building, but takes an example of an executed structure that may be defective. In designing a public school the architect often overlooks an ideal plan which would considerably simplify his design for the sake of following one that has been built for a different site, and it is the same with the planning of a large hospital for special cases. A typical arrangement may be found out by investigation and study ; but, instead, the architect adopts the general scheme of some executed hospital without inquiry. Town halls and municipal offices now exist in numerous cities, and it ought not to be difficult to find out good types of plan to follow. The shape of the site and various other things, like light and levels of ground, have to be considered ; but the leading principles of locating the departments, of communication between the offices, lighting, etc., should be clear to the mind before the design is carried out. A type of plan does not necessarily refer solely to the ensemble or grouping of the building, but to the internal connection of the parts, the principle of disposing the offices of town clerk, the accountants' and rates department, sanitary and medical offices, the town council chamber and its various subsidiary rooms. Above all, it is necessary to have a correct idea of the requirements of the public, and the easiest and direct routes to such departments as the rate-collector's offices, the sanitary offices, the magistrate's courts, etc., so that the routes or corridors may not overlap other departments or cause confusion and inconvenience to the regular officials engaged in other offices. This principle of economy of plan is very often neglected in designs for buildings of this class. The most frequented public offices ought to be planned with as short and direct routes from separate entrances as possible. Again, there

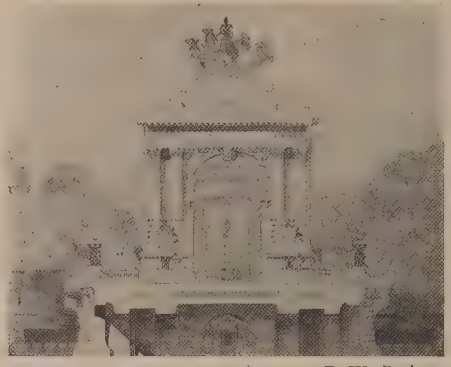
(Continued page 109.)

THE LIVING ROOM, "HAMPTON HALL," RESIDENCE, W. E. HAMPTON, MONTCLAIR, N. J. Frank E. Wallis, Architect. Wurts Bros., Photo.

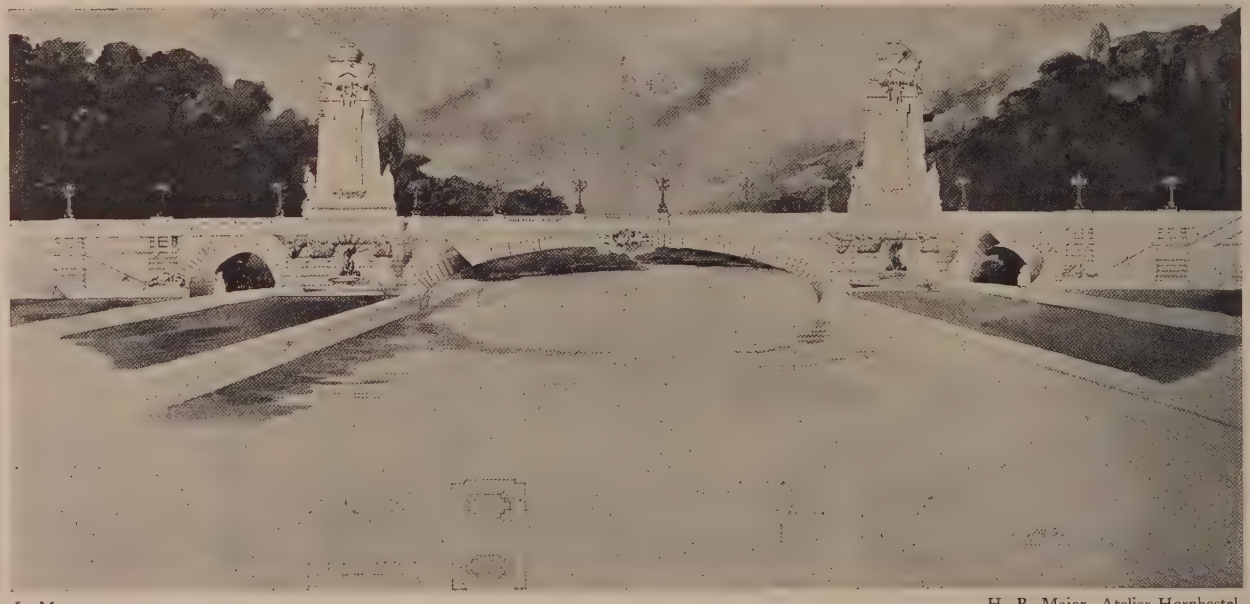


I. Mention. F. W. Puckey, Atelier Donn Barber.

Elevation of Archway. H. B. Major.



Elevation of Archway. F. W. Puckey.



I. Mention. H. B. Major, Atelier Hornbostel.

BEAUX ARTS COMPETITION. CLASS B.—A STONE BRIDGE.

(Continued from page 107.)

are some good types for technical schools and laboratories and public baths which ought to form a staple subject in every architect's education; but these are not generally available. The best designs for buildings of this description are by men who are not inclined to publish their work and are not communicative about the results achieved or the principle they have made their own; so the ordinary architect has to be contented with buildings of less repute. When we consider that experience of a special kind is dearly bought, we are not surprised that the best public buildings are only accessible to those who can visit them and make their own personal observations. The published plans of buildings of particular kinds, such as those we give, are also of great value if they are studied in a proper manner, without exclusive reference to their accidental and external character. They ought to be studied, not copied; and the way to study them is not to be satisfied with looking at the plan and finding out its good points, but to discover how they comply with the requirements—to do which the problem must be thought over first and the conditions of the site and building mastered. Unless the problem is mentally present, the examination of a building or a plan can have little value except in exhibiting the skill and craftsmanship of the designer in the details of the plan. The mental effort to see what is required and to express it in form is very seldom attained, and it is this which constitutes the idea. The standard building is more or less an expression of such an idea; but there are few of them, and it is only the skilled architect that can discern one when he sees it. The majority are content to follow second-hand and to take ordinary buildings as their guides. But, as we have said, men with ideas are rare, while there are an abundance of people who take their knowledge second- and third-hand and who design buildings in the same way. They do not care for advances. The plan of a hospital which was tolerable many years ago is sufficient for them; clients and committees also put their trust in them—they would rather accept a design which shows a disposition of wards they are accustomed to see than a new plan based on the most recent science.

The Society of Beaux Arts Architects

INCORPORATED 1894.

S. B. P. TROWBRIDGE, President.

WHITNEY WARREN, Vice-President.

A. A. STOUGHTON, 96 5th Ave., Secretary.

JOSEPH H. HUNT, Treasurer.

LLOYD WARREN, 3 E. 33d St. Chairman Committee on Education.

March 5, 1904.

CLASS A—PLAN PROBLEM.

AN OFFICE FOR A FIRM OF ARCHITECTS.

THIS building should contain, arranged in the most convenient manner, all the departments which constitute a thoroughly equipped architect's office, where between sixty and seventy people are employed in all departments.

Besides the necessary vestibules and staircases, including a separate entrance for the employees, there shall be:

A main entrance with door-keeper and office boys to take messages and direct callers to the proper departments of the office.

A waiting room for contractors.

A waiting room for clients.

The private office of the two partners, one of whom shall direct the designing and the other the business part of the practice; these should have their own toilet rooms, and a room for a private secretary adjoining.

General office for telephone station, type-writer, book-keepers, etc.

Various toilet rooms where necessary.

Large draughting-room, with box for head draughtsman.

Library.

Engineering department for chief engineer and six draughtsmen.

Room for chief superintendent, who shall write specifications, and his staff of about six men.

Blue print room, fire-proof vault for drawings and archives.

Stack-room for current drawings.

In treating this problem the student must remember that it is neither a building for the exclusive transaction of business nor is it an artist's studio, but must partake of the character of the two. The main entrance with the part devoted to clients should be treated monumentally, whereas the working part should be treated very simply.

The building shall occupy an inside lot 50′ x 100′ in a side street, and shall consist of three or four stories.

For the esquisse there is required a plan of every floor except basement, a facade and longitudinal section at $\frac{1}{16}''$ scale. The esquisse must be done in ink.

For the rendu are required the same drawings at $\frac{1}{8}''$ scale, except the facade, which shall be at the $\frac{1}{4}''$ scale.

LLOYD WARREN,
Chairman Committee on Education.

April 2d, 1904.

CLASS A.—ESQUISSE-ESQUISSE.

The Committee on Education proposes as subject of this Esquisse

A MARKET CROSS.

The subject of this program is a little structure marking the center of a small town, from which roads radiate in several directions. It will be in the nature of a monument, shaft, or pedestal, sufficientiy high to be conspicuous, resembling in idea the market crosses of several English towns, but not necessarily having a cross.

It will stand on a base or platform, and may have, at the discretion of the designer, such features as a drinking fountain, bulletin board, lamps, direction and distance boards, or barometer.

Its total height is not to exceed twenty feet.

A plan and section at $\frac{1}{4}$ inch scale and the elevation at $\frac{1}{2}$ inch scale shall be made.

LLOYD WARREN,
Chairman Committee on Education.

April 16, 1904.

PROBLEM IN ARCHAEOLOGY.

The Committee on Education proposes as the subject of this Competition,

THE INTERIOR OF A MEMORIAL HALL IN THE STYLE OF LOUIS XIV.

A hall 30′ by 70′, 40′ high to the base of the roof, already constructed, is to receive its interior treatment.

(Continued page 111.)

I. Mention. J. R. Adams, Atelier Greenley.

I. Mention. E. J. Kolb, Atelier Washington University.

BEAUX ARTS COMPETITION. CLASS B.—A ROSTRAL COLUMN.

(Continued from page 109.)

It consists of five bays with windows high above the floor. At one end there is a monumental fireplace with a gallery for musicians, the entrance being at the other.

The hall is part of a building of a learned Society and will be used for its meetings and social functions.

The purpose of this competion is to afford an opportunity for the careful study of the style which the French themselves call "Architecture francaise," that the effect of largeness and dignity characteristic of it may be appreciated and obtained.

For the esquisses the plan and elevation of the fireplace end of the hall only and the section of this end, showing one bay at 1/8 inch scale. The esquisses must be in ink.

For the rendered drawings the same at 1/2 inch scale.

LLOYD WARREN,
Chairman Committee on Education.

April 2, 1904.

CLASS B.—PLAN PROBLEM.

A BRIDGE.

This bridge spans a small stream, which separates the parts of a town of fine residences.

It forms an approach to, and an important feature of the civic centre of the town and should be treated in an elaborate and dignified manner, expressing the importance and consequence of the town.

The level of the banks is twenty feet above the water. The channel is one hundred feet wide. Just above the water-level are promenades, which pass under the bridge and rise to the upper level by steps or slopes.

The structure will consist of a masonry arch springing from two piers at the edge of the channel, with suitable approaches, under which the lower promenades pass.

The two piers will be treated with regard to their structural purpose and architectural effect, as seen from the promenade and river, and will be completed above the roadway by triumphal arches. The width of the bridge between railings is twenty-five feet, the roadway fifteen feet between curbs, this being also the width of the arches. The sidewalks may go through or around the piers.

For the Esquisse a plan and elevation of the bridge at 1/16 inch scale and two elevations of the pier motive, at 1/8 inch scale. The esquisse must be in ink.

For the rendered drawings two plans, one showing bridge from above and one through the piers at 1/16 inch scale.

One elevation at 1/8 inch scale (from river).

One elevation of end motive at 1/4 inch scale (from shore).

LLOYD WARREN,
Chairman Committee on Education.

April 2, 1904.

CLASS B.—ORDER PROBLEM.

The Committee on Education proposes as a subject for this competition,

THE IONIC ORDER.

The owner of an estate having in his possession three Ionic columns of the style of Louis XIV, 12 feet 0 inches high, decides to use them as the architectural setting of a spring, whose waters are brought from the side of a hill to its base by pipes.

His architect is directed to use the columns, by placing their axes on the apices of an equilateral triangle of a 3 feet 6 inches a side. The columns will rest on a platform, with steps and other accessories; between them will be a suitable basin vase or mouth, through which the water will rise in a jet.

Upon the columns will rest an entablature supporting a globe, which may be of metal in the form of an astrolabe or planetary sphere or clock.

The Esquisse shall consist of a plan, section and elevation at 1/4 inch scale. The esquisse must be in ink.

The rendered drawings shall consist of plan, section and elevation, showing a single column at the back, at 1/2 inch scale, and a detail of the order, showing one column in direct elevation, with

part of shaft omitted, and such other features as the designer chooses to show, at 1½ inch scale.

The drawings may be rendered in India ink or colors; the detail must be drawn and rendered with great care, with accurately cast shades and shadows.

LLOYD WARREN,
Chairman Committee on Education.

May 7, 1904.

CLASS B.—ESQUISSE-ESQUISSE.

The Committee on Education proposes as the subject for this sketch:

THE ENTRANCE TO A SUBWAY TUNNEL.

REQUIREMENTS.

A Rapid Transit Underground Railway, having four tracks, emerges from under a main avenue of the city by two large arches, each wide enough for two tracks. It is required to design the architectural treatment of these arches and the adjacent masonry.

Each arch is of 22 feet span, and the pavement of the avenue over them is 30 feet above the tracks at this point. The embankment walls in front on either side are 70 feet apart. Over the centre of the facade, formed by the two arches, is to be a panel or other feature with the arms of the city or other decoration. Balustrades, stairs, turrets, piers, etc., at the designer's discretion. The architecture should be simple, vigorous and dignified.

Required, plans and section to $\frac{1}{16}$ inch scale, elevation to $\frac{1}{8}$ inch scale.

LLOYD WARREN,
Chairman Committee on Education.

REPORT OF JUDGMENT, HELD MAY 25, 1904.

Jurors present—Messrs. Atterbury, Barber, Hornbostel, Perkins. Denby, Gay, Kohn, Trowbridge, Lord, Lloyd Warren.

CLASS A—PLAN PROBLEM.

AN OFFICE FOR A FIRM OF ARCHITECTS.

Fisher, A. A.	New York	Atelier Barber	I Mention
Walker, J. E.	New York	Atelier Hornbostel	I Mention

CLASS A—ESQUISSE-ESQUISSE. A MARKET CROSS.

Ogden, P. H.	New York	Atelier Barber	II Mention
Wynkoop, John	New York	Atelier Barber	I Mention

CLASS B—PLAN PROBLEM. A BRIDGE.

Betelle, J. G.	New York	Atelier Barber	I Mention
Crane, J. J.	New York	Atelier Barber	II Mention
Davis, Jr., J. W.	New York	Atelier Barber	Hors Concours
DeWitt, Gerard	New York	Atelier Barber	II Mention
Feirer, J. F.	New York	Atelier Hornbostel	II Mention
Foley, J. J.	New York	Atelier Barber	II Mention
Hammond, F. P.	New York	Atelier Barber	I Mention
How, K. G.	New York	Atelier Hornbostel	II Mention
Luckhurst, C. A.	New York	Atelier Perkins	II Mention
McKinney, E. B.	New York	Atelier Hornbostel	II Mention
Major, H. B.	New York	Atelier Hornbostel	I Mention
Puckey, F. W.	New York	Atelier Barber	I Mention
Robb, E. D.	New York	Atelier Perkins	II Mention
Valk, S. DeW.	New York	Atelier Perkins	II Mention
Wendehack, C. C.	New York	Atelier Barber	II Mention

CLASS B—ORDER PROBLEM. THE IONIC ORDER.

Bill, H. S	New York	Atelier Almirall	Mention
Breiby, J. C.	New York	Atelier Barber	Mention
Bruno, F. A.	New York	Atelier Barber	Mention
Eggers, A. R.	New York	Atelier Hornbostel	I Mention
Hart, R. E.	New York	Atelier Perkins	I Mention
Ives, H. A.	New York	Atelier Perkins	Hors Concours
Varian, L. E.	New York	Atelier Barber	Mention
Wheeler, H. H.	New York	Atelier Barber	II Mention
Bond, W. C.	Washington	Atelier Pietsch	Mention
Hitt, S. M.	Washington	Atelier Pietsch	III Mention
Wehrell, J. F.	Washington	Atelier Pietsch	Mention

CLASS B—ESQUISSE-ESQUISSE.

THE ENTRANCE TO A SUBWAY TUNNEL.

Hammond, F. P.	New York	Atelier Barber	Mention
Valk, S. DeW.	New York	Atelier Perkins	Mention
Webb, G. B.	New York	Atelier Hornbostel	Mention

ARCHAEOLOGY.

THE INTERIOR OF A MEMORIAL HALL IN THE STYLE OF LOUIS XIV.

Sibley, Ernest	Des Moines	Hors Concours

LLOYD WARREN,
Chairman Committee on Education

February 6, 1904.

CLASS B—PLAN PROBLEM.

A ROSTRAL COLUMN.

This column, which shall be erected in commemoration of the victory of Santiago, shall decorate a circle formed at the intersection of several streets and avenues in a large city. It shall be placed on a high base, which may be decorated by allegorical groups, fountains, ramps, etc., the whole to form a very rich ensemble and to cling strictly to the naval character.

The highest point of the monument must not exceed sixty feet in height and the ground occupied must not exceed thirty feet square.

For the esquisse there shall be required a plan and elevation at $\frac{1}{16}$″ scale. The esquisse must be in ink.

For the rendered drawings there shall be required a plan at $\frac{1}{8}$″ scale and a perspective in which the axis of the column shall be at $\frac{1}{4}$″ scale. Date of rendu, March 28th.

LLOYD WARREN,
Chairman Committee on Education.